

# TEST REPORT

Report No. CTK20240218003ROHS

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**Applicant:** Onok Luz Técnica  
**Address:** C. Proyecto Oeste Pol B, 3, 46800 Xàtiva, Valencia

**Manufacturer:** Onok Luz Técnica  
**Address:** C. Proyecto Oeste Pol B, 3, 46800 Xàtiva, Valencia

**Report on the submitted sample(s) said to be :**

**Name:** Downlight  
**Type/Model:** OPT1A07N24BBS,OPT1A07N24BWS,OPT1A07N34BBS,OPT1A07N34BWS,OPT1A07N44BBS,OPT1A07N44BWS,OPT2A07N24BBS,OPT2A07N24BWS,OPT2A07N34BWS,OPT2A07N34BBS,OPT2A07N44BBS,OPT2A07N44BWS,ORBTA01N22ABS,ORBTA01N22AWS,ORBTA01N32ABS,ORBTA01N32AWS,ORBTA01N42ABS,ORBTA01N42AWS,ORBTA02N22ABS,ORBTA02N22AWS,ORBTA02N32ABS,ORBTA02N32AWS,ORBTA02N42ABS,ORBTA02N42AWS,ORBTA03N22ABS,ORBTA03N22AWS,ORBTA03N32ABS,ORBTA03N32AWS,ORBTA03N42ABS,ORBTA03N42AWS,ORBTA04N22ABS,ORBTA04N22AWS,ORBTA04N32ABS,ORBTA04N32AWS,ORBTA04N42ABS,ORBTA04N42AWS

**Buyer:** /  
**Supplier:** /

**Date of Receipt:** 2024-02-21

**Test Request:** In according with RoHS Directive 2015/863/EU and amending Annex II to Directive 2011/65/EU.

**Test Result:** Please refer to following page(s).

**Conclusion:** Based on the performed test on submitted sample, the result(s) comply with the limits as set by RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU.

Tested by: Amin Wang Reviewed by: Carr Lin Approved by: Alan Lan  
Amin Wang Carr Lin Alan Lan



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endorsement by **Certitek**. The test results in the report only apply to the tested sample. The test report shall be invalid without all the signatures of testing engineers, reviewer and approver. Any objections must be raised to **Certitek** within 15 days since the date when the report is received. It will not be taken into consideration beyond this limit.

## Sample description:

Downlight

## Test method:

Test Item(s)	Test method	Measuring instrument	MDL
Lead(Pb)	IEC 62321-5:2013	ICP-OES/AAS	2mg/kg
Cadmium(Cd)	IEC62321-5:2013	ICP-OES/AAS	2mg/kg
Mercury(Hg)	IEC 62321-4:2013+A1:2017	ICP-OES	2mg/kg
Hexavalent Chromium [Cr(VI)]	IEC 62321-7-2:2017	UV-VIS	5mg/kg
PBBs & PBDEs	IEC 62321-6:2015	GC-MS	10mg/kg
Dibutyl phthalate (DBP)	IEC 62321-8:2017	GC-MS	1000mg/kg
Butyl benzyl phthalate (BBP)	IEC 62321-8:2017	GC-MS	1000mg/kg
Bis (2-ethylhexyl) phthalate (DEHP)	IEC 62321-8:2017	GC-MS	1000mg/kg
Diisobutyl Phthalates (DIBP)	IEC 62321-8:2017	GC-MS	1000mg/kg

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## Test result (Paint of metal enclosure):

Test Item	Result	Unit	RoHS Limit
	1		
Sum of PBBs	4.3.	mg/kg	1000
Monobromobiphenyl	N.D.	mg/kg	---
Dibromobiphenyl	N.D.	mg/kg	---
Tribromobiphenyl	N.D.	mg/kg	---
Tetrabromobiphenyl	N.D.	mg/kg	---
Pentabromobiphenyl	N.D.	mg/kg	---
Hexabromobiphenyl	N.D.	mg/kg	---
Heptabromobiphenyl	N.D.	mg/kg	---
Octabromobiphenyl	N.D.	mg/kg	---
Nonabromobiphenyl	N.D.	mg/kg	---
Decabromobiphenyl.	N.D.	mg/kg	---
Sum of PBDEs	N.D.	mg/kg	1000
Monobromodiphenyl ether.	N.D.	mg/kg	---
Dibromodiphenyl ether.	N.D.	mg/kg	---
Tribromodiphenyl ether.	N.D.	mg/kg	---
Tetrabromodiphenyl ether.	N.D.	mg/kg	---
Pentabromodiphenyl ether.	N.D.	mg/kg	---
Hexabromodiphenyl ether.	N.D.	mg/kg	---
Heptabromodiphenyl ether.	N.D.	mg/kg	---
Octabromodiphenyl ether.	N.D.	mg/kg	---
Nonabromodiphenyl ether.	N.D.	mg/kg	---
Decabromodiphenyl ether.	N.D.	mg/kg	---
Lead(Pb)	N.D.	mg/kg	1000
Cadmium(Cd)	11.8.	mg/kg	100
Mercury(Hg)	N.D.	mg/kg	1000
Hexavalent Chromium [Cr(VI)]	6.8.	mg/kg	1000
Dibutyl phthalate (DBP)	N.D.	mg/kg	1000
Butyl benzyl phthalate (BBP)	N.D.	mg/kg	1000
Bis (2-ethylhexyl) phthalate (DEHP)	N.D.	mg/kg	1000
Diisobutyl Phthalates (DIBP)	N.D.	mg/kg	1000

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**Test result (LED driver):**

Test Item	Result	Unit	RoHS Limit
	1		
Sum of PBBs	2.5.	mg/kg	1000
Monobromobiphenyl	N.D.	mg/kg	---
Dibromobiphenyl	N.D.	mg/kg	---
Tribromobiphenyl	N.D.	mg/kg	---
Tetrabromobiphenyl	N.D.	mg/kg	---
Pentabromobiphenyl	N.D.	mg/kg	---
Hexabromobiphenyl	N.D.	mg/kg	---
Heptabromobiphenyl	N.D.	mg/kg	---
Octabromobiphenyl	N.D.	mg/kg	---
Nonabromobiphenyl	N.D.	mg/kg	---
Decabromobiphenyl.	N.D.	mg/kg	---
Sum of PBDEs	N.D.	mg/kg	1000
Monobromodiphenyl ether.	N.D.	mg/kg	---
Dibromodiphenyl ether.	N.D.	mg/kg	---
Tribromodiphenyl ether.	N.D.	mg/kg	---
Tetrabromodiphenyl ether.	N.D.	mg/kg	---
Pentabromodiphenyl ether.	N.D.	mg/kg	---
Hexabromodiphenyl ether.	N.D.	mg/kg	---
Heptabromodiphenyl ether.	N.D.	mg/kg	---
Octabromodiphenyl ether.	N.D.	mg/kg	---
Nonabromodiphenyl ether.	N.D.	mg/kg	---
Decabromodiphenyl ether.	N.D.	mg/kg	---
Lead(Pb)	6.3.	mg/kg	1000
Cadmium(Cd)	N.D.	mg/kg	100
Mercury(Hg)	N.D.	mg/kg	1000
Hexavalent Chromium [Cr(VI)]	N.D.	mg/kg	1000
Dibutyl phthalate (DBP)	N.D.	mg/kg	1000
Butyl benzyl phthalate (BBP)	N.D.	mg/kg	1000
Bis (2-ethylhexyl) phthalate (DEHP)	4.2.	mg/kg	1000
Diisobutyl Phthalates (DIBP)	N.D.	mg/kg	1000

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## Test result (Lampshade):

Test Item	Result	Unit	RoHS Limit
	1		
Sum of PBBs	N.D.	mg/kg	1000
Monobromobiphenyl	N.D.	mg/kg	---
Dibromobiphenyl	N.D.	mg/kg	---
Tribromobiphenyl	N.D.	mg/kg	---
Tetrabromobiphenyl	N.D.	mg/kg	---
Pentabromobiphenyl	N.D.	mg/kg	---
Hexabromobiphenyl	N.D.	mg/kg	---
Heptabromobiphenyl	N.D.	mg/kg	---
Octabromobiphenyl	N.D.	mg/kg	---
Nonabromobiphenyl	N.D.	mg/kg	---
Decabromobiphenyl.	N.D.	mg/kg	---
Sum of PBDEs	N.D.	mg/kg	1000
Monobromodiphenyl ether.	N.D.	mg/kg	---
Dibromodiphenyl ether.	N.D.	mg/kg	---
Tribromodiphenyl ether.	N.D.	mg/kg	---
Tetrabromodiphenyl ether.	N.D.	mg/kg	---
Pentabromodiphenyl ether.	N.D.	mg/kg	---
Hexabromodiphenyl ether.	N.D.	mg/kg	---
Heptabromodiphenyl ether.	N.D.	mg/kg	---
Octabromodiphenyl ether.	N.D.	mg/kg	---
Nonabromodiphenyl ether.	N.D.	mg/kg	---
Decabromodiphenyl ether.	N.D.	mg/kg	---
Lead(Pb)	N.D.	mg/kg	1000
Cadmium(Cd)	N.D.	mg/kg	100
Mercury(Hg)	N.D.	mg/kg	1000
Hexavalent Chromium [Cr(VI)]	N.D.	mg/kg	1000
Dibutyl phthalate (DBP)	N.D.	mg/kg	1000
Butyl benzyl phthalate (BBP)	N.D.	mg/kg	1000
Bis (2-ethylhexyl) phthalate (DEHP)	N.D.	mg/kg	1000
Diisobutyl Phthalates (DIBP)	N.D.	mg/kg	1000

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**Test result (Reflector):**

Test Item	Result	Unit	RoHS Limit
	1		
Sum of PBBs	N.D.	mg/kg	1000
Monobromobiphenyl	N.D.	mg/kg	---
Dibromobiphenyl	N.D.	mg/kg	---
Tribromobiphenyl	N.D.	mg/kg	---
Tetrabromobiphenyl	N.D.	mg/kg	---
Pentabromobiphenyl	N.D.	mg/kg	---
Hexabromobiphenyl	N.D.	mg/kg	---
Heptabromobiphenyl	N.D.	mg/kg	---
Octabromobiphenyl	N.D.	mg/kg	---
Nonabromobiphenyl	N.D.	mg/kg	---
Decabromobiphenyl.	N.D.	mg/kg	---
Sum of PBDEs	N.D.	mg/kg	1000
Monobromodiphenyl ether.	N.D.	mg/kg	---
Dibromodiphenyl ether.	N.D.	mg/kg	---
Tribromodiphenyl ether.	N.D.	mg/kg	---
Tetrabromodiphenyl ether.	N.D.	mg/kg	---
Pentabromodiphenyl ether.	N.D.	mg/kg	---
Hexabromodiphenyl ether.	N.D.	mg/kg	---
Heptabromodiphenyl ether.	N.D.	mg/kg	---
Octabromodiphenyl ether.	N.D.	mg/kg	---
Nonabromodiphenyl ether.	N.D.	mg/kg	---
Decabromodiphenyl ether.	N.D.	mg/kg	---
Lead(Pb)	N.D.	mg/kg	1000
Cadmium(Cd)	N.D.	mg/kg	100
Mercury(Hg)	N.D.	mg/kg	1000
Hexavalent Chromium [Cr(VI)]	N.D.	mg/kg	1000
Dibutyl phthalate (DBP)	N.D.	mg/kg	1000
Butyl benzyl phthalate (BBP)	N.D.	mg/kg	1000
Bis (2-ethylhexyl) phthalate (DEHP)	N.D.	mg/kg	1000
Diisobutyl Phthalates (DIBP)	N.D.	mg/kg	1000

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**Test result (Supply wire):**

Test Item	Result	Unit	RoHS Limit
	1		
Sum of PBBs	N.D.	mg/kg	1000
Monobromobiphenyl	N.D.	mg/kg	---
Dibromobiphenyl	N.D.	mg/kg	---
Tribromobiphenyl	N.D.	mg/kg	---
Tetrabromobiphenyl	N.D.	mg/kg	---
Pentabromobiphenyl	N.D.	mg/kg	---
Hexabromobiphenyl	N.D.	mg/kg	---
Heptabromobiphenyl	N.D.	mg/kg	---
Octabromobiphenyl	N.D.	mg/kg	---
Nonabromobiphenyl	N.D.	mg/kg	---
Decabromobiphenyl.	N.D.	mg/kg	---
Sum of PBDEs	N.D.	mg/kg	1000
Monobromodiphenyl ether.	N.D.	mg/kg	---
Dibromodiphenyl ether.	N.D.	mg/kg	---
Tribromodiphenyl ether.	N.D.	mg/kg	---
Tetrabromodiphenyl ether.	N.D.	mg/kg	---
Pentabromodiphenyl ether.	N.D.	mg/kg	---
Hexabromodiphenyl ether.	N.D.	mg/kg	---
Heptabromodiphenyl ether.	N.D.	mg/kg	---
Octabromodiphenyl ether.	N.D.	mg/kg	---
Nonabromodiphenyl ether.	N.D.	mg/kg	---
Decabromodiphenyl ether.	N.D.	mg/kg	---
Lead(Pb)	N.D.	mg/kg	1000
Cadmium(Cd)	N.D.	mg/kg	100
Mercury(Hg)	N.D.	mg/kg	1000
Hexavalent Chromium [Cr(VI)]	N.D.	mg/kg	1000
Dibutyl phthalate (DBP)	N.D.	mg/kg	1000
Butyl benzyl phthalate (BBP)	N.D.	mg/kg	1000
Bis (2-ethylhexyl) phthalate (DEHP)	N.D.	mg/kg	1000
Diisobutyl Phthalates (DIBP)	N.D.	mg/kg	1000

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## Test result (LED module):

Test Item	Result	Unit	RoHS Limit
	1		
Sum of PBBs	7.3.	mg/kg	1000
Monobromobiphenyl	N.D.	mg/kg	---
Dibromobiphenyl	N.D.	mg/kg	---
Tribromobiphenyl	N.D.	mg/kg	---
Tetrabromobiphenyl	N.D.	mg/kg	---
Pentabromobiphenyl	N.D.	mg/kg	---
Hexabromobiphenyl	N.D.	mg/kg	---
Heptabromobiphenyl	N.D.	mg/kg	---
Octabromobiphenyl	N.D.	mg/kg	---
Nonabromobiphenyl	N.D.	mg/kg	---
Decabromobiphenyl.	N.D.	mg/kg	---
Sum of PBDEs	N.D.	mg/kg	1000
Monobromodiphenyl ether.	N.D.	mg/kg	---
Dibromodiphenyl ether.	N.D.	mg/kg	---
Tribromodiphenyl ether.	N.D.	mg/kg	---
Tetrabromodiphenyl ether.	N.D.	mg/kg	---
Pentabromodiphenyl ether.	N.D.	mg/kg	---
Hexabromodiphenyl ether.	N.D.	mg/kg	---
Heptabromodiphenyl ether.	N.D.	mg/kg	---
Octabromodiphenyl ether.	N.D.	mg/kg	---
Nonabromodiphenyl ether.	N.D.	mg/kg	---
Decabromodiphenyl ether.	N.D.	mg/kg	---
Lead(Pb)	3.8.	mg/kg	1000
Cadmium(Cd)	N.D.	mg/kg	100
Mercury(Hg)	4.6.	mg/kg	1000
Hexavalent Chromium [Cr(VI)]	N.D.	mg/kg	1000
Dibutyl phthalate (DBP)	N.D.	mg/kg	1000
Butyl benzyl phthalate (BBP)	6.3.	mg/kg	1000
Bis (2-ethylhexyl) phthalate (DEHP)	N.D.	mg/kg	1000
Diisobutyl Phthalates (DIBP)	N.D.	mg/kg	1000

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## Test result (Cable clip):

Test Item	Result	Unit	RoHS Limit
	1		
Sum of PBBs	N.D.	mg/kg	1000
Monobromobiphenyl	N.D.	mg/kg	---
Dibromobiphenyl	N.D.	mg/kg	---
Tribromobiphenyl	N.D.	mg/kg	---
Tetrabromobiphenyl	N.D.	mg/kg	---
Pentabromobiphenyl	N.D.	mg/kg	---
Hexabromobiphenyl	N.D.	mg/kg	---
Heptabromobiphenyl	N.D.	mg/kg	---
Octabromobiphenyl	N.D.	mg/kg	---
Nonabromobiphenyl	N.D.	mg/kg	---
Decabromobiphenyl.	N.D.	mg/kg	---
Sum of PBDEs	N.D.	mg/kg	1000
Monobromodiphenyl ether.	N.D.	mg/kg	---
Dibromodiphenyl ether.	N.D.	mg/kg	---
Tribromodiphenyl ether.	N.D.	mg/kg	---
Tetrabromodiphenyl ether.	N.D.	mg/kg	---
Pentabromodiphenyl ether.	N.D.	mg/kg	---
Hexabromodiphenyl ether.	N.D.	mg/kg	---
Heptabromodiphenyl ether.	N.D.	mg/kg	---
Octabromodiphenyl ether.	N.D.	mg/kg	---
Nonabromodiphenyl ether.	N.D.	mg/kg	---
Decabromodiphenyl ether.	N.D.	mg/kg	---
Lead(Pb)	N.D.	mg/kg	1000
Cadmium(Cd)	N.D.	mg/kg	100
Mercury(Hg)	N.D.	mg/kg	1000
Hexavalent Chromium [Cr(VI)]	N.D.	mg/kg	1000
Dibutyl phthalate (DBP)	N.D.	mg/kg	1000
Butyl benzyl phthalate (BBP)	N.D.	mg/kg	1000
Bis (2-ethylhexyl) phthalate (DEHP)	N.D.	mg/kg	1000
Diisobutyl Phthalates (DIBP)	N.D.	mg/kg	1000

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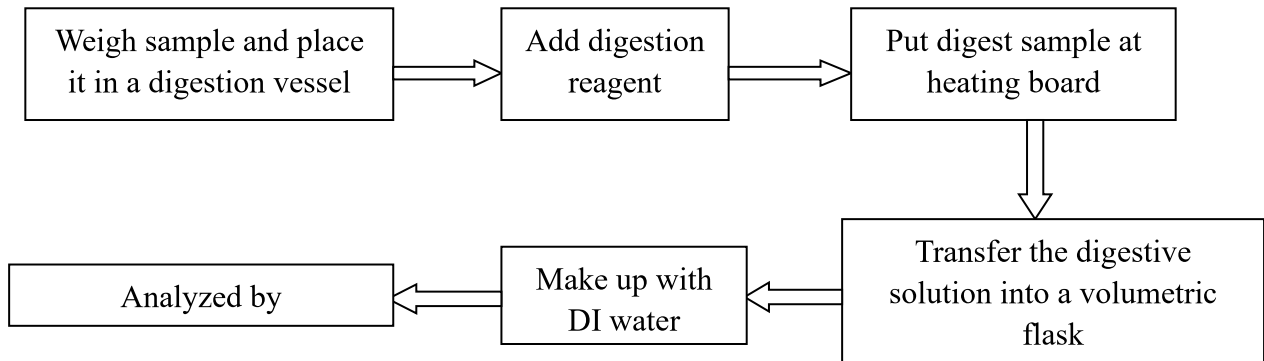
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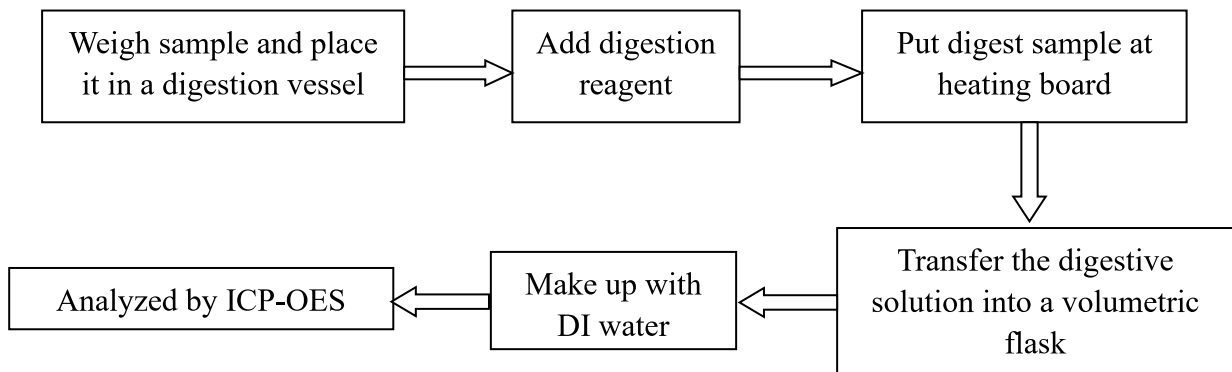


- Remark: 1) mg/kg=ppm  
2) MDL=Method Detection Limit  
3) "N.d."= Not Detected (Below Method Detection Limit)

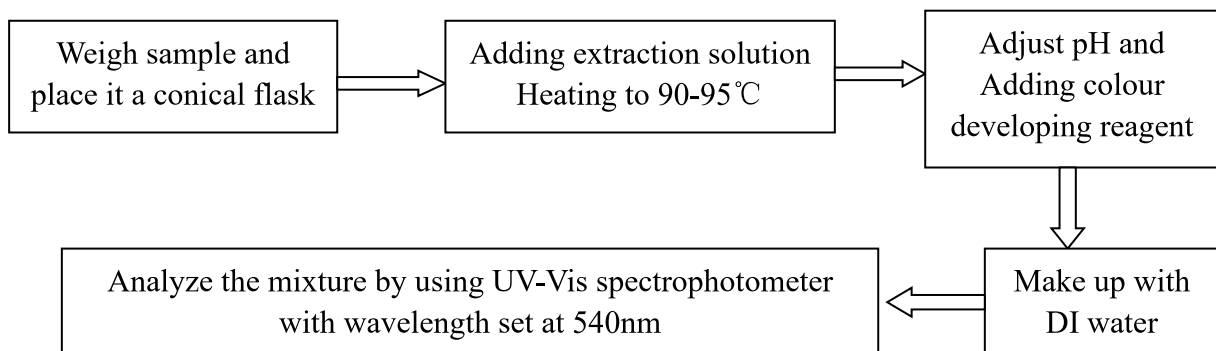
## Test Process for Pb / Cd



## Test Process for Hg



## Test Process for Cr (VI)



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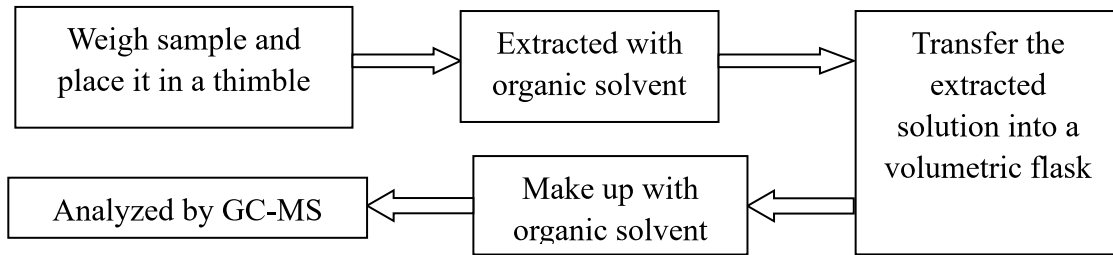
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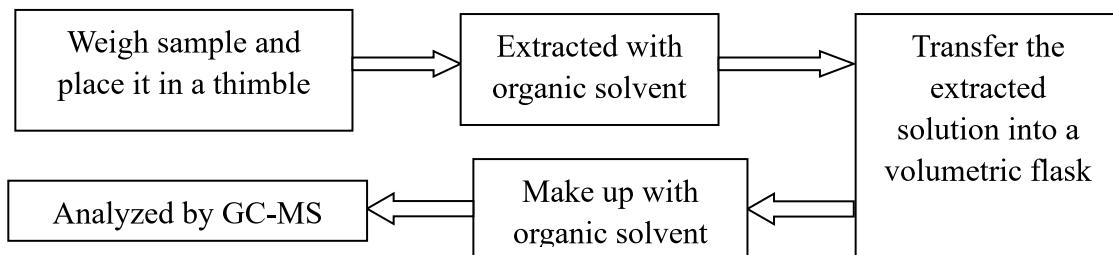
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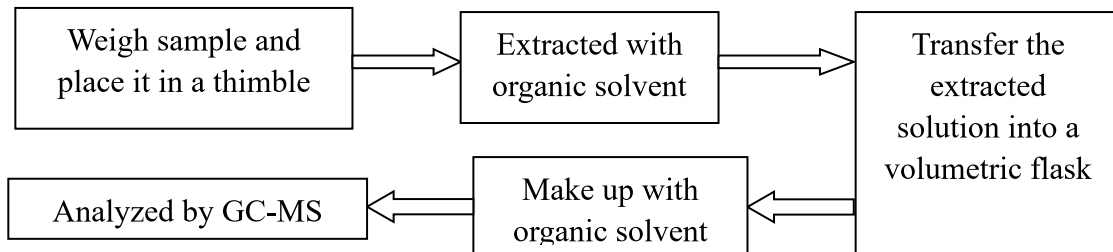
## Test Process for PBBs & PBDEs



## Test Process for (DBP)



## Test Process for (BBP)



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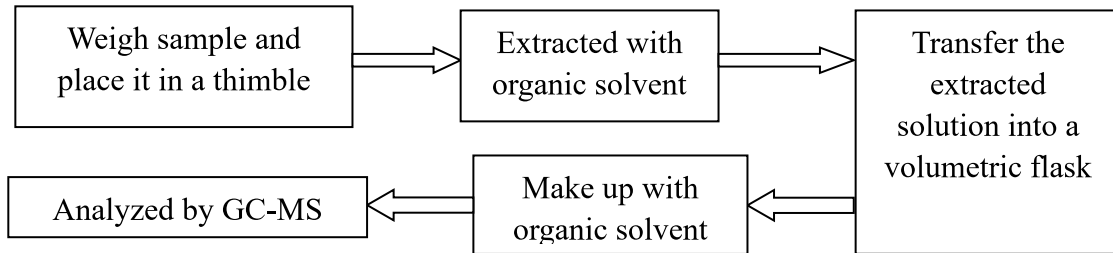
# TEST REPORT

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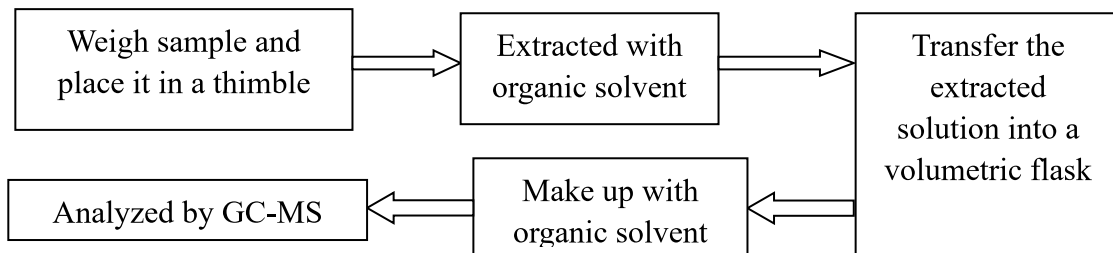
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## Test Process for (DEHP)



## Test Process for (DIBP)



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## Photos of Sample



Fig 1

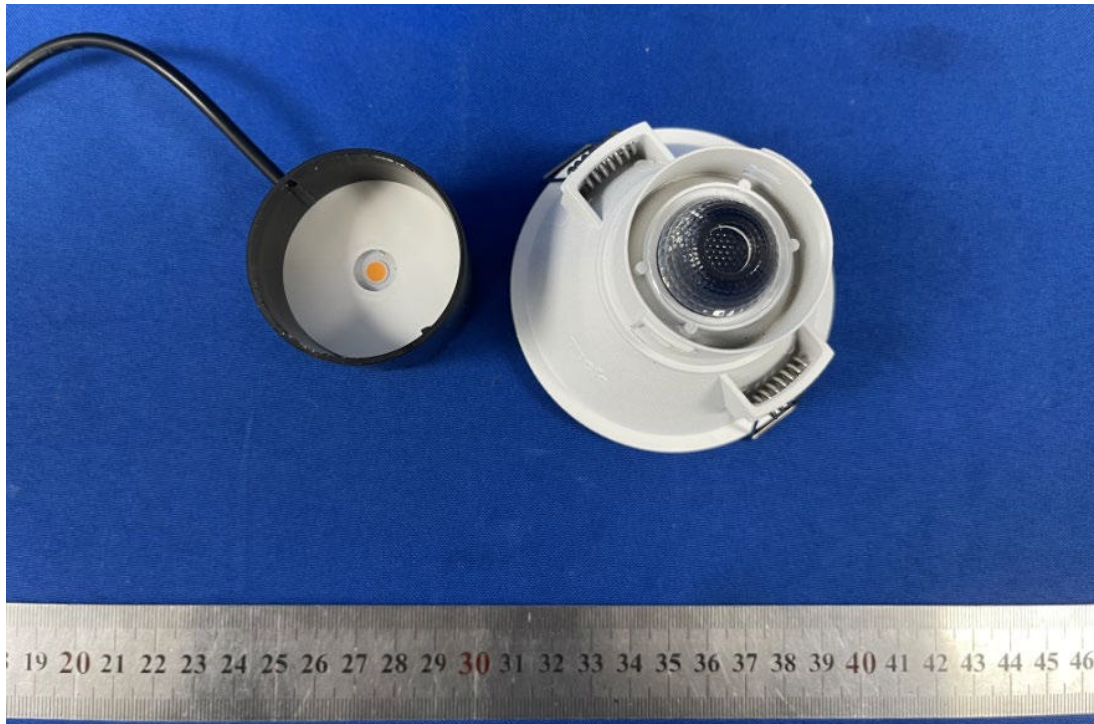


Fig 2

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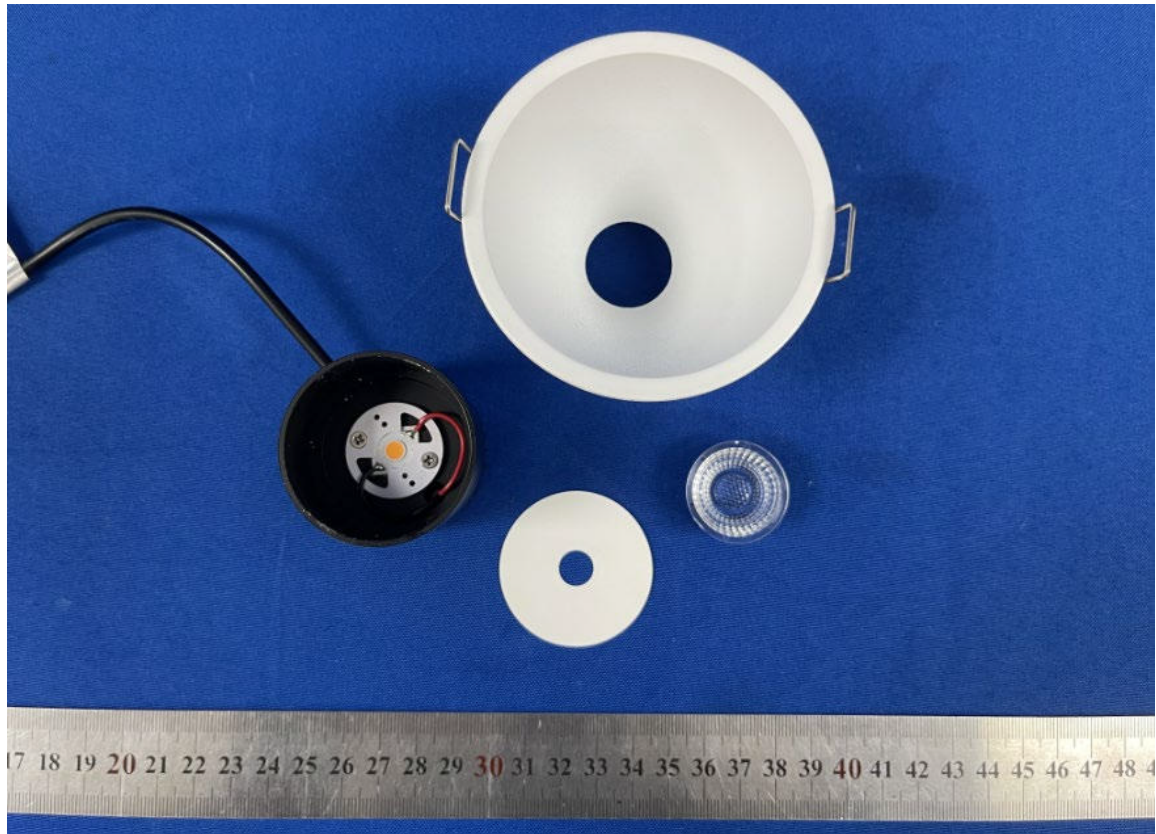


Fig 3

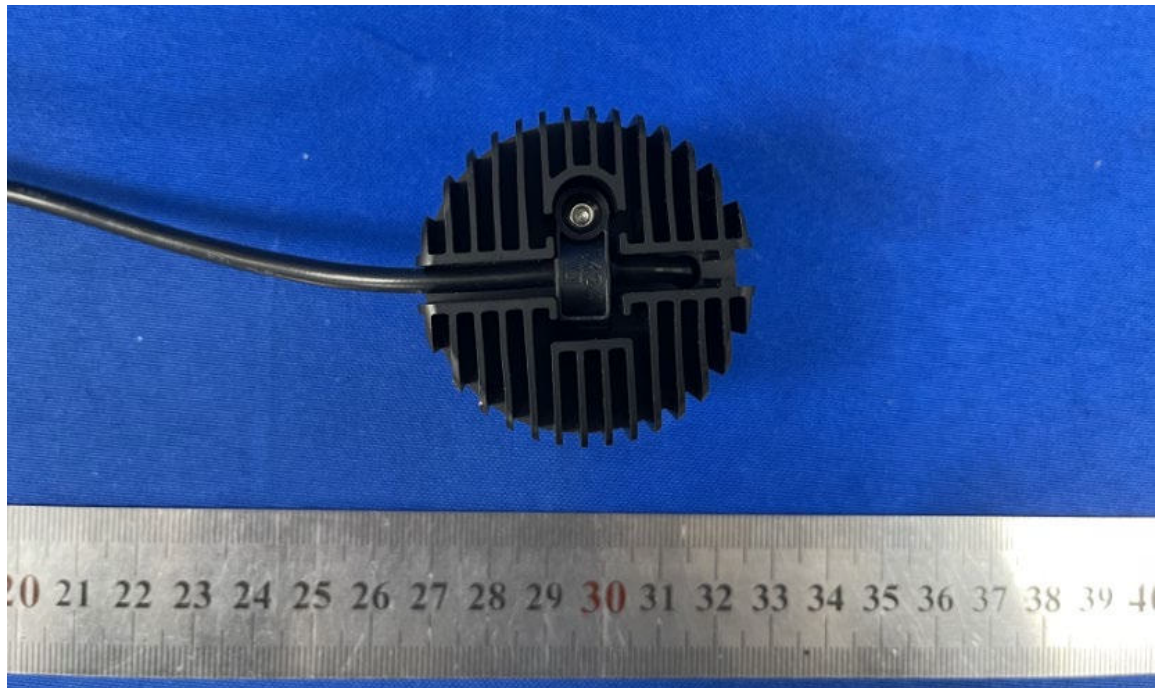


Fig 4

**GUANGZHOU CERTITEK TESTING SERVICES CO., LTD**

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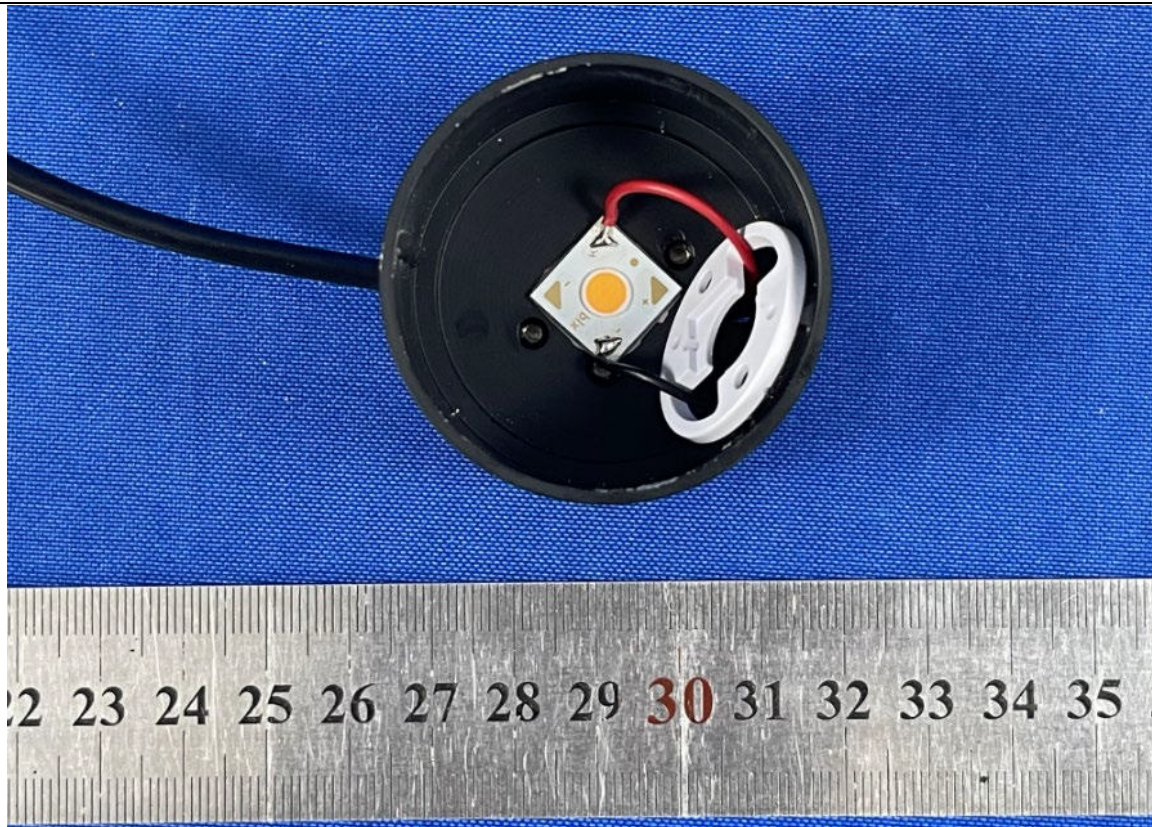


Fig 5

==== End of Report ====

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